

Molecular Weight Determination of Polyacrylamide
By Means of the Ultracentrifuge, by W. Scholtan,
14 pp

DUTCH, per, Makromolekulare Chemie, Vol 15, 1954,
No 2/3, pp 169-178
SIA TT-64-20516

Sci - Chem
May 67

326,651

The Effectiveness of Various Peroxides on the
Solutions Polymerization of Styrene Accelerated
With the Aid of Redox-systems, by R. Schulz,
W. Kern, 15 pp.

GERMAN, per, Die Makromolekulare Chemic, Vol XIII,
No 2/3, 1954, pp 214-222.

S.L.A. Tr No 311/1955

Sci - Chemistry
Jan 1957 CTS/dex

44, 962

The Formation of Graft Polymers from Polyacrylamide and Acrylonitrile under the Influence of Ultrasonic Waves, by A. Henglein, 15 pp.

GERMAN, per, Makromolekulare Chemie, Vol XIV,
1954, pp 128-145.

AT&T 8M286

Sci-Phys
Jun 59
CMB I, 10

89, 711

Autoxidation of Unsaturated Compounds by W. Kern and
H. Willersinn.

GERMAN, per, Makromol Chem, Vol XV, 1955, pp
1-14.

ASTID-GB57

Sci

Aug 58

71,194

Autoxidation of Unsaturated Compounds. II, by
W. Kern and H. Willersheim.

GERMAN, per, Makromol Chem, Vol IV, 1955, pp 15-35.

ASLIB-GB57

71,195

Autoklavierung of Unsaturated Compounds, by W. Kern and H. Willersinn.

GERMAN, per, Makromol Chem, Vol XV, 1955, pp 36-59.

AS LIB-GB57

Sci

Aug 58

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Peroxidation of Polystyrene and Poly-p-
Isopropyl-Styrene, by W. Hahn, H.
Lechtenbohmer.

GERMAN, per, Die Makromolekulare Chemie,
1955, pp 50-64.

Vol X

ERDL, Ft Belvoir
T-1368

Sci - Chem
Jul 61

160, 513

Reduction of Fluorvinyl Chloride With Lithium Aluminum Hydride, by D. Hahn, W. Mueller, S. P.

GERMAN, per Makromolekulare Chem., Vol XVI, No. 1,
1955, pp 70-73.

SLA 59-10946

Sci
Dec 59
Vol 2, No

102, 144

The Crystal Structure of Isotactic
Polystyrene, by G. Matta, P. Corradini,
3 pp.

GERMAN, per, Makromol Chem, Vol XVI, No 1,
1955, pp 77-80.

Assoc Tech Serv-36AVG

Sci
AUG 58

68, 234

Henglein, F. A. and others.
POLYBORYL FORMALS AND POLYBORIC ACID
SILYLESTERS. [1962] 15p.
Order from K-H \$18.75 K-H 6360
Trans. of Makromolekulare Chemie (Switzerland)
1955, v. 15, p. 177-187.

DESCRIPTORS: *Polymers, *Boron compounds, Methyl,
*Boric acids, *Silicon compounds, Esters.

(Chemistry--Organic, TT, v. 9, no. 11)

63-12960

I. Henglein, F. A.
II. K-H-6360
III. Kreage-Hooker Science
Library Associates,
Detroit, Mich.

TT-64-2261

Office of Technical Services

Polymeric Acroleins. I. Studies on the Polymerization
of Acrolein, by R. C. Schulz,

GERMAN, pcp, Makromolekular Chem., Vol XVII, 1953,
pp 62-73.

AT&T 342-GJ

Sci - Chem

123, 387

Aug 60

Kern, W., Funk, R. and others.
LINEAR POLYESTERS WITH ALCOHOLIC END
GROUPS AND THEIR DETERMINATION (Lineare
Polyester mit Alkoholischen Endgruppen und deren
Bestimmung). [1961] {22}p. 34 refs.
Order from SI.A m152.70, ph\$4.80

(61-10484)

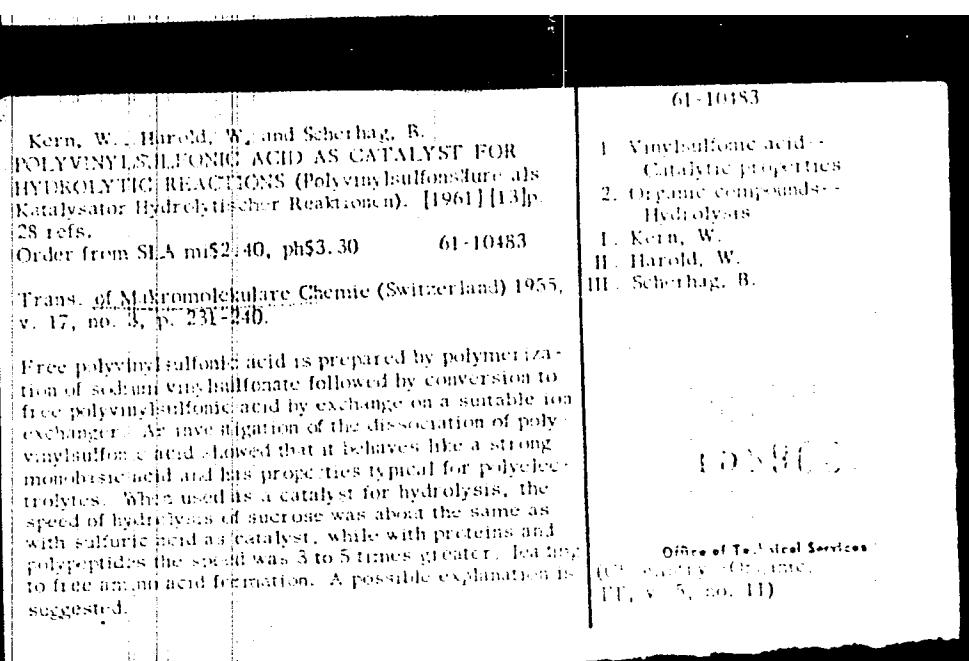
Trans. of Makromolekulare Chemie (Switzerland) 1955,
v. 17, no. 3, p. 201-218.

Linear succinic acid-1,6-hexandiol polyesters with
alcoholic end groups were prepared by condensation in
melt and in solutions with an excess of the diol. Poly-
esters of higher molecular weight with predominantly
alcoholic end groups were obtained by secondary con-
densation with the diol. The reaction of the products
with phenyl isocyanate leads to polyester diurethanes.
The determination of nitrogen according to Kjeldahl
gives molecular weights up to about 5×10^3 with sat-
isfactory precision. On total hydrolysis of the polyester
diurethanes, urethane is formed, which was quantita-
(Chemistry--Organic, TT, v. 5, no. 11) (over)

61-10484

- I. Esters--Determination
I. Kern, W.
II. Funk, R.

Office of Technical Services



Natta, G., Bassi, L., and Corradini, P.
ON THE CHAIN STRUCTURE OF CRYSTALLINE
POLYVINYL ISOBUTYL ETHER. [1963] 7p. (figs.
omitted) 16 refs.
Order from SLA \$1.10

63-14194

Trans. of Makromolekulare Chemie (Switzerland) 1955,
v. 17, Dec, p. 455-462.

DESCRIPTORS: *Molecular structure, Crystal structure.
*Acetal plastics, Ethers, Plastics.

The chain structure of crystalline polyvinyl isobutyl ether, prepared by a cationic catalysis mechanism, is discussed. The x-ray photo data are interpreted with the aid of the molecular transformation method, and it is concluded that the polymer is isotactic in the crystal phase (that is, the asymmetrical carbon atoms all have the same steric (space) configuration), and the polymer (Chemistry-Physics, TT, v. 10, no. 9) (over)

63-14194

1. Title: Polyvinylisobutyl ether
- I. Natta, G.
- II. Bassi, L.
- III. Corradini, P.

Office of Technical Services

On the Sulphonation of Polystrene With the
Addition Compound of Sulphur Trioxide With
Dioxane, by R. Signer, A. Demagistri, C. Muller.

GERMAN, per, Makromol Chem, Vol XVIII, XIX, 1956,
pp 139-150.

DSIR/29893/CT

Sci - Chemistry
Oct 57

53, 897

Bier, G. and Krämer, H.
CONTRIBUTION TO THE STRUCTURE OF POLY-
VINYLCHLORIDE. [1963] [19]p. 4 refs.
Order from SLA \$1.60

63-18306

Trans. of Makromolekulare Chemie (Switzerland) 1956,
v. 18/19, p. 151-163.

DESCRIPTORS: *Polyvinyl chloride, *Molecular structure, Colloids, Viscosity, Molecular weight, Reaction kinetics.

Polyvinyl chloride was prepared by the process of emulsion polymerization under various conditions. Polymers in which more extensive branching was anticipated due to the method of preparation, were characterized by the relation, $Z_7 = K_m \cdot M^a$, $a < 1$. Polymers in which less branching was anticipated exhibited a linear relation between Z_7 and M . Fractions of the more extensively branched substance exhibited a higher viscosity than (Matchless--Plastics, TT, v. 10, no. 11) (over)

63-18306

I. Bier, G.
II. Krämer, H.

Office of Technical Services

Constitution Of Urea and Chicurea - Formaldehyde
Condensates by Staudinger ~~and others.~~

GERMAN, per, Makromolekulare Chemie, Vol XX,
1955, pp 1-18.

CSIRO

Oct. 62

On the Structure Of Polyvinyl Chloride, by G. Bier
and H. Kramer.

GERMAN, per, Makromolekulare Chemie, No 18/19,
1956, pp 151-165.

CSIRO

Oct. 62

Polymeric Acroleins. Part III(noh). Oximation and Quantitative Determination of Aldehyde Groups, by R. C. Schulz, H. Fauth, W. Kerns, 6 pp.

GERMAN, per, Makromolekulare Chemie,
Vol XX, 1956, pp 161-167.

AT&T-38439G
AT&T-675-GJ

Sci
Mar 62
Vol IV, No 2

188,892

The Preparation of Polystyrene As a Classroom Experiment, by K. Ziegler, H. Martin.

GERMAN, per, Makromol Chem, No 18, 19, 1956,
pp 186-194.

Assoc Tech Sv

Tr 35H100

\$9.00

52,246

Sci - Chem
Sep 57

The Self-Linking of Filamentary Molecules, by W. Kuhn,
H. Maier, 19 pp.

No 18/19
GERMAN, per, Makromol Chem, Vol. XVII-XIX, 1956,
pp 239-253.

SLA #r 1678

Jan 1957

46, 333

Sci - Chem
Apr 1957

The Relationship Between the Hydrogen Bond and Certain Properties of Polyamides, by R. Brill.

GERMAN, per, Makromol Chem, Vol XVIII-XIX, Mar 1956,
pp 294-309.

ASLID-GB39

Sci

Aug 59

95,100

Graft ~~ma~~ and Block Copolymers From Synthetic and
Natural Macromolecules, by E. H. Immergut, H.
Mark, 22 pp.

GERMAN, per, Makromolekulare Chemie, Vol XVIII/
XIX, 1956, pp 322-341.

SLA 59-15947

Sci
Dec 59
Vol 2, No 4

102, 725

Natta, G[iulio] Bassi, I[vano Walter] and Corradini, P[aolo].

THE CHAIN STRUCTURE OF CRYSTALLINE POLY-VINYL ISOBUTYL ETHER. [1963] 11p (figs omitted). Order from K-H \$11.00 K-H 5388 a

Trans. of Makromolekulare Chemie (Switzerland) 1956, v. 18/19, p. 455-462.

DESCRIPTORS: Ethers, *Butyl radicals, *Vinyl radicals, Polymers, Crystallization, Molecular structure

(Chemistry--Organic, TT, v. 11, no. 2)

TT-63-22804

- I. Natta, G. I.
- II. Bassi, I. W.
- III. Corradini, P.
- IV. K-H-5388-a
- V. Kreage-Hooker Science Library Associates, Detroit, Mich.

Office of Technical Services

Viscosity Numbers and Molecular Weights
of Fractionated Isotactical Polystyrenes,
by G. Matta, F. Damusco, G. Moruglio, 7 pp.

GERMAN, per, Makromol Chem, Vol XX, 1956,
pp 37-45.

NOT RELEASE TO FOREIGN NATIONALS

CIA/FDD XX-282

Sci - Chemistry
May 1957 CMB/dex
IAC INTERNAL USE ONLY

477,662

The Molecular Weight Distribution of Some Low Pressure Polyethylenes, by H. Wesslau, 27 pp.

GERMAN, per, Makromol Chem, Vol XX, No 2, 1956,
pp 111-142.

Assoc Tech Sv

Sci - Chemistry
Oct 57

54,430

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Ciampa, Giuseppe and Schwindt, Hans.
VISCOMETRIC WEIGHT DETERMINATION OF
POLYVINYL CHLORIDE. [1963] [14]p. 55 refs.
Order from SLA \$1.60 63-18305

Trans. of Makromolekulare Chemie (Switzerland)
1956, v. 27, p. 169-178.

DESCRIPTORS: *Polyvinyl chloride, *Molecular weight, Determination, Viscosity, Osmotic pressure, Light, Scattering, Equations.

Different equations are given by various authors to describe the relations between $[\eta]$ and \bar{M}_n and between $[\eta]$ and M_w of polyvinyl chloride. Therefore a series of whole polyvinyl chlorides polymerized in suspension was investigated, using cyclohexanone as solvent, and determination was made of $[\eta]$, \bar{M}_n (osmotically) and M_w (by light scattering). The osmotic molecular (Materials--Plastics, TT, v. 10, no. 11) (over)

63-18305

I. Ciampa, G.
II. Schwindt, H.

Office of Technical Services

Preliminary Report on the Crystal Structure of
Isotactic Poly-2-Butene, by G. Natta, P. Corradini,
I. W. Bassi, 4 pp.

GERMAN, per, Makromol Chem, Vol. XXI, No 3, Dec 1956,
pp 240-244.

SLA #r 57-1175

Sci - Chemistry
Oct 57

54,487

The Structure of Chlorinated Polyvinyl Chlorides,
by Walter Fuchs, Dieter Louis, 26pp
DUTCH, per, Makromolekulare Chemie, Vol 22, 1957,
No 1/2, pp 1-30
SIA TT-64-16335

Sci - Eng
May 67

327,387

Fractionation of High Pressure Polyethylenes, by
A. Basini, C. Musso, 34 pp.

GERMAN, per, Makromolekulare Chemie, Vol XXII, 1957,
pp 59-80.

SLA 60-14117

SLA 75 G 14117

Sci

Sep 61

169,059

Vol III, No 9

Investigations to Explain the Structure of
Polyvinyl Chloride, by Hans Bäumer, Berlin
Kisch, 19 pp.

GERMAN, ger, Makromolekulare Chemie, Vol XXII,
No 1/2, 1957, pp 131-146.

CSIRO
SLA 59-15945 (24 pp - 2.40)
SLA 77-62-14195 (several pages - 2.40)
SLA 77-62-16307 (22 pp - 2.60)

Sci. & Chem.
Dec 59
Vol 2, No 4

102,783

1,1,2,2-Tetrahydro Glycol Terephthalic Acid Ester Film
As an "Ideal" Osmotic Membrane. 2. Semi-
Permeable Membranes, by G. Meyerhoff, 3 p.

SER 111111

~~Chemie~~, per, Makromolekulare Chemie, 1957,
Vol XXXI, pp 237-239.

SLA 59-15368

Sci
Des 59
Vol 2, No 6

104, 109

The Synthesis of Uniform Linear Oligoesters
of the Polyglycol Terephthalate Type, by
H. Zahn and R. Krzikalla.

GERMAN, per, Makromol. Chem., Vol XXIII, No 1, 1957,
pp 31-53.

AFILIB-0839

Sci

Aug 58

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Analytical Determination of the Polyester
Carboxyl Groups, by P. Fijolka, et al.

GERMAN, pol., Makromolekulare Chemie,
Vol. XXIII, No 1, 1957, pp 60-70.

CSIRO

Sci - Chem
May 62

196,409

Cadmium Amine Complex Bases as Cellulose Solvents,
by Georg Seydel, Karlheinz Heuschaffter, 16 pp.

GERMANY, new, Makromolekulare Chemie, Vol XXIII,
No 1, 1957, pp 71-83.

SLA 59-10751

Sci
Mov 59
Vol 2, No 3

101 531

Determination of Osmotic Pressures by Experimental Data
and Calculation from the Rate of Approach to
Equilibrium, by H. G. Elias, 5 pp.

GERMAN, per, Makromol Chem, Vol XXIII, No 2-3, 1957,
pp 175-179.

ATIS-63J17G

Sci

Aug 59

93, 584

Chlor Transfer Constants and Structure of
Polymethyl Methacrylate, by G. Henrici-Olivier.

GERMANY, part, Makromolekulare Chemie, Vol XXIII,
No 2/3, 1957, pp 207-219.

C.S.I.R.O.

Sci-Chem

May 60

116 224

Cellulose Crotonates and Cellulose
Acetocrotonates, by H. Engelmann,
F. Eynck.

CHIGAN, par, Makromolekulare Chemie,
Vol XXIII, 1957, pp 233-243.

CSIRO

Sci - Chem
Jul 62

203, 465-

Osmotic Molecular Weight Determinations of Styrene-Acrylonitrile Copolymers, by Kurt Ueberreiter, Wolfgang Krull, 20 pp.

GERMAN, per, Makromolekulare Chemie, Vol XXIV, No 1, 1957.

SIA 59-15917

Sci
Dec 59
Vol 2, No 5

103,646

Kinetics of the Chain Growth and Break off
Processes with the Stereospecific Polymeriza-
tion of Propylene, by G. Natta, 31 pp.
SWISS, per, Makromolekulare Chemie, Vol XXIV,
No 3, 1957, pp 258-290.
CFSTI TT-64-18151

Sci - Chem
Jul 66 305,823

Scholtan, W.

DETERMINATION OF THE MOLECULAR WEIGHT
DISTRIBUTION OF POLYVINYL PYRROLIDONE BY
TURBIDOMETRIC TITRATION AND A COMPARISON
OF THE DIFFERENT METHODS OF EVALUATION.
[1963] [31p] (figs formulae refs omitted)

Order from SLA \$3.60

TT-63-20934

Trans. of Makromolekulare Chemie (Switzerland)
1957, v. 24, p. 104-132.

(Chemistry-Analytical, TT, v. 12, no. 1)

TT-63-20934

I. Scholtan, W.

Office of Technical Services

Investigations Into the Structure Of P.V.C. by
H. Batzer and A. Nisch.

GERMAN, per, Makromolekulare Chemie, No 1/2,
1957, pp 131-145.

CSIRO

Oct. 62

The Redox Polymerization of Acrolein in an Aqueous Medium. VII. Acrolein Polymers, by R. C. Schulz,

GERMAN, part, Makromolekular Chem, Vol XXIV, 1957,
pp 141-151.

AT&T 343-GJ

Sci. - Chem

Aug 60

123,328

Nicolas, L.

MOLECULAR WEIGHT DISTRIBUTION IN HIGH-PRESSURE POLYETHYLENES. 30p 21refs.
Order from SLA \$2.60

TT-64-18159

Trans. of Makromol[ekulare] Chemie (Switzerland)
1957, v. 24 [no. 3] p. 173-[204].

(Materials--Plastics, TT, v. 12, no. 7)

TT-64-18159

I. Nicolas, L.

Office of Technical Services

The Solution Viscosity as Function of
Concentration For Unbranched and Branched Polymers.
Pt 1. The Solution Viscosity as a Function of
Concentration for Unbranched Polymers, by
M. Hoffmann, 20 p.

E. H. H. M., per, Makromolekulare Chemie, 1957, Vol XXIV,
No 3, pp 222-244.

SLA 59-15379

Sci
Dec 59
Vol 2, No 6

104, 113

The Solution Viscosity as Function of
Concentration for Unbranched and Branched
Polymers, Pt. 2, The Effect of Branching on the
Solution Viscosity as a Function of Concentration
for Branched Polymers, by M. Hoffmann, 12 p.

Berlin, per, Makromolekulare Chemie, 1957,
Vol XIV, No 3, pp 245-257.

SLA 59-15765

Sci
Dec 59
Vol 2, No 6

104,106

Kinetics of Chain Growth and Termination Processes
in Stereospecific Polymerization of Polypropylene, by G. Witt, I. Pasquon, E. Giachetti, 19 pp.

GERMAN, per, Makromol Chem, Vol XXIV, No 3, Oct 1957, pp 258-260

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SLA 57-3574

Sci

Jul 59

92, 418

Determination of Molecular Weights in Polyamides by
Measurements of Light Scattering, by H. G. Pendler,
H. A. Stuart, 24 pp.

GERMAN, per, Makromolekulare Chemie, Vol XXV, No 3,
1957, pp 159-175.

SLA 59-15257

Sci
Dec 59
Vol 2, No 5

103,600

The Question of "Adsorption Error" in Capillary Viscometry, by H. Uristatter, 9 pp.

GERMAN, per, Makromolekulare Chemie, No. XXV,
No. 3, 1953, pp 199-204.

59
SIA 22-15919

Sci
Dec 59
Vol 2, No 4

102,730

^{c/}
Reply to the Preceding Publication of H. Umstatter:
Problem of the So-Called "Adsorption Error" in the
Capillary Viscosimetry, by O. E. Ohrn, 7 pp.

GERMAN, per, Makromolekulare Chemie, Vol XXV, No 3,
1958, pp 205-209.

SLA 59-15920

Sci
Dec 59
Vol 2, No 4

102, 715

Analysis Methods for Polyesters, by P. Fijolka,
J. Lenz, F. Runge, 5 pp.

GERMAN, per, Makromol Chem, Vol XXVI, No 1/2, 1958,
pp 61-66.

SLA 59-15665

Sci + Chem
Sep 54
Vol 2, No 2

97 961

The Problem of the Membrane in Osmotic Measurements
on High Polymers. Part 1, by H. G. Elias, T. Ritscher,
F. Putat, 17 pp.

GERMAN, per, Makromolekulare Chemie, Vol XXVII,
No 1-2, 1958, pp 1-22.

Assoc Tech Serv 505260
14.25

Sci. & Phys
OTS I, 4
Apr 59

85-249

The Photocatalytic Degradation of Unsaturated Polyester Resins, Investigation of the UV-Absorption Spectra, by J. Voigt.

GERMANY, per, Makromol Chem, Vol XXVII, No 1-2, 1958,
pp 80-100.

AT&T 140-GJ

Sci
Nov 59

100,412

Research on Cured Polyester Resins, by W. Funke.
UBCL.

Vol XXVIII,
GERMAN, per, Makromol Chem, No 1, 1958,
pp 17-57.

TIL 5063

Sci - 1208
Mar 60

111,876

Synthetic Linear Polymers V. The Effect of
Tetrasalkyl-Diaryl Activators on the Polymerisation
of Methyl Methacrylate Monomer-Polymer Mixtures
in the Presence of Benzoyl Peroxide,

OKUNAI, per, Makromolekulare Chemie,
1958, pp 176-1845.

CSIRO

Sci - Chem
Jun 62

199, 207

Synthesis of Macromolecules of Uniform Size. Part
IV. Principles of As the Duplication Process, by
W. Kern, W. J. Rautenkus, 13 pp.

GERMANY, FED., Makromolekulare Chemie, Vol. XXVIII, No. 3,
1958, pp 221-235.

AT&T-33L313
AT&T-237-63

Sci + Chem
Dec 59
Vol. 2, No. 4

102 770

Kleine, Johannes and Kleine, Hans-Henning.
HIGH MOLECULAR WEIGHT, AND PARTICULARLY
OPTICALLY ACTIVE POLYESTERS OF LACTIC
ACID. A CONTRIBUTION TO THE STEREOCHEM-
ISTRY OF MACROMOLECULAR COMPOUNDS. [1961]
27p. 35 refs.

Order from SLA \$2.60

62-10221

Trans. of Makromolekulare Chem[ie] (Switzerland)
1959, v. 30 [no. 1] p. 23-38.

DESCRIPTORS: *Stereochemistry, Chemistry, *Lactic
acid, Acids, *Polymers, Esters, Molecular weight,
Optics, Polymerization, Racemization, Molecular
structure

The preparation of high molecular weight, and particu-
larly optically active polyesters of lactic acid is de-
scribed and the influence of the steric configuration on
(Chemistry-Organic, TT, v. 7, no. 9) (over)

62-10221

I. Kleine, J.
II. Kleine, H. -H.

Office of Technical Services

The Evolution of the Membrane in Osmotic Measurements of High Polymers, III,
by T. A. KEITSCHE, H. G. ELIAS, 51 pp.

GERMAN, per, Makromolekulare Chemie,
Vol XXX, No 1, 1959, pp 48-80.

SLA 60-18412

Sci
Vol IV, No 11.
July 52

199, 253

Patai, F. MEMBRANES FOR OSMOTIC MEASUREMENTS. [1961] 22p. 62 refs. Order from SLA \$2.60	61-18875 Trans. of [Makromolekulare Chemie (Switzerland) 1959, v. 34, p. 129-138].	61-18875 I. Title: Steverman effect I. Patai, F. 29 (Chemistry--Organic, TT, v. 6, no. 10) Office of Technical Services

The Molecular Constants of Polycarbonates in
Solution, by G. V. Schulz, A. Horbach, 21 pp.

GERMAN, per, Makromol Chem, Vol XXIX, No 1-2,
1959, pp 93-116.

ADS 141-GJ
ADS 17L31G

Sci.
Nov 59

100,414

Kinetics of the Establishment of Equilibrium in an \bar{M}
Osmometer, I, by G. V. Schulz, Wo H. Kuhn.

GERMAN, Ber., Makromol Chem, Vol XXIX, 1959, pp 220-225

AT&T 185-4W

Sci. & Chem.
Nov 59

100,384

a-u - Dicarbonyldisulphones and Their High-Molecular
Fibre-Forming Polycondensation Products, by Christian
P. Horn, 36 p.

SWISS, per, Mikromol Chem, 1959, Vol XXX, No 2/3,
pp 123-153.

SLA 59-20782

Sci
Mar 60
Vol 3, No 1

110 968

Reversibly Cross-Linked and Branched Polyacrylate Compounds, 3. Production and Copolymerization of Divinyl-Schiff Bases with Styrene, by K. Ringstorff, C. Gruber, J. P.

Staub, Dtsr, Makrom Chem, 1959, Vol XXXI, No 1,
pp 59-74.

SLA 59-20004

Sci
Mark 60
Vol 3, No 3

110 3/21

Griezl, Wolfgang and Schaaf, Siegfried.
ON ANIONIC ϵ -CAPROLACTAM POLYMERIZATION:
EXPERIMENTS CONCERNING THE STABILIZATION
OF VISCOSITY. Jan 60 [12]p. 15 refs.
Order from SLA m\$1.80, ph\$1.80 61-10233

Trans. of Mikromolekulare Chemie (Switzerland)
1959, v. 32, no. 2/3, p. 176-183.

Grignard compounds have been used for anionic
caprolactam polymerization. In order to obtain a more
uniform course, it was possible to initiate polymeriza-
tion processes therewith, but they followed the same
rules observed when using sodium caprolactam. The
addition of acetic acid esters of long-chain alcohols,
however, resulted in a distinct stabilizing effect.
Acetyl caprolactam, which was used in different con-
centration ratios, had a still better effect. The re-
sulting rules regarding the dependence of the number
average degree of polymerization in equilibrium upon
(Chemistry-Organic, TT, v. 5, no. 4) (over)

61-10233

- I. Lactams--Polymerization
- II. Griezl, W.
- III. Schaaf, S.

143,199

Office of Technical Services

Preparation and Properties of Isomeric,
Polymeric and Cyclic Methylsilyldisilanes,
by Friedrich August Ganglein,
Klaus Kitzelkord.
Ber. der. Ges. Makromolekulare Chemie, Vol XXXI
1960, pp. 218-225. D606497
ILL 8810 372

Chem.-Ztg.
1960, 84

291, 0-3

Reactions of Silicates With Organic Compounds,
by H. Deuel.

GERMAN, per, Makromolekulare Chemie,
Vol XXXIV, 1959, pp 206-215.

GB/137

Sci
Dec 62

Some Reactions With Methyl Hydrogen Polysiloxane,
by S. Hettner, 13 pp.

GERMAN, part, Makromolekulare Chemie, Vol XXXIV,
1959, pp 231-239.

SLA 60-10705

SCI/CH/FL/74

Sci

OMS, Vol XXX, No 7

133, 272

Dec 60

Light Scattering Molecular Weights of
Thermal Styrene Polymers, by J. W.
Breitenbach, H. Breitenbach.
GERMAN, per, Makromolekulare Chemie,
Vol 37, 1960, pp 53-63.
IICR-8686

Sci-Chem
Jul 66

305,536

The Determination of the Molecular Weight From
the Change of the Experimental Gradient Curve of
the Ultracentrifuge, by Matatiahu Gabatia.

GERMAN, per. Die Makromolekulare Chemie, Vol XXXVII,
1960, pp 85-96.

NH 4-18-63

Sci - Chem

Jul 63

238,071

63-18354

Meyerhoff, G.

MOLECULAR DIMENSIONS OF POLYMERS IN
DIFFERENT SOLVENTS ON THE BASIS OF HYDRO-
DYNAMIC MEASUREMENTS. (Moleküldimensionen
von Polymeren in Verschiedenen Lösungsmitteln auf
Grund Hydrodynamischer Messungen). Report from
the IUPAC Symposium on Macromolecules, Wiesbaden,
1959. [1963] [221p. (foreign text included) 19 refs.
Order from SLA #2.60 63-18354

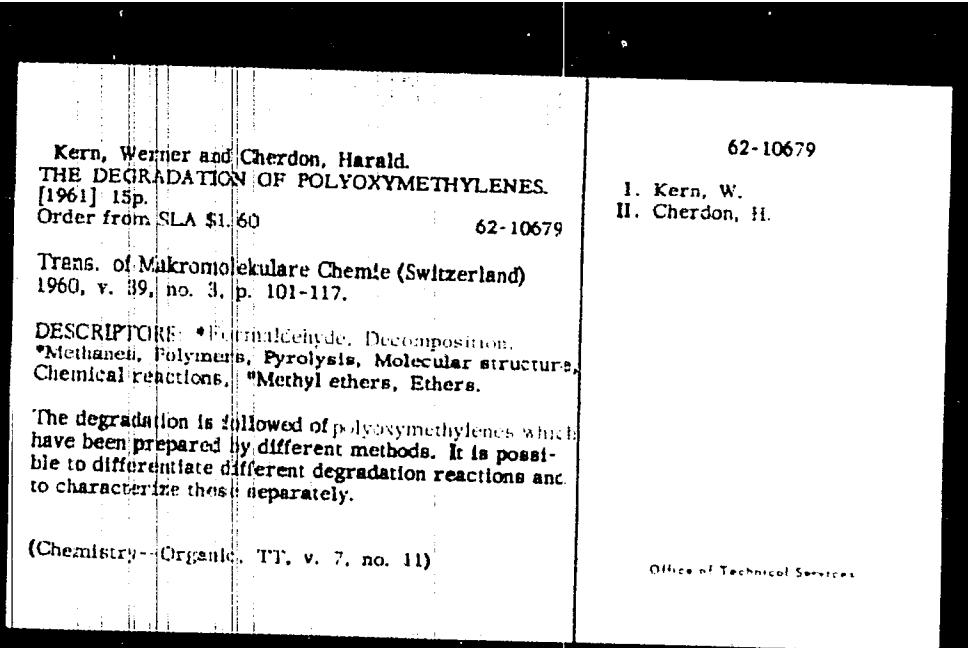
Trans. of Makromolekulare Chemie (Switzerland)
1960, v. 37, no. 1/2, p. 97-107.

DESCRIPTORS: *Styrene plastics, Molecular prop-
erties, *Solvents, *Chloroform, *Toluenes,
*Cyclohexanes, *Ketones, Methyl radicals, Ethyl
radicals, Viscosity, Sedimentation, Diffusion,
Friction, Hydrodynamics.

Materials--Plastics, TT, v. 10, no. 12) (over)

I. Meyerhoff, G.
II. Title: IUPAC ...

Office of Technical Services



MAKROMOLEKULARE CHEMIE	
1960 V77 P1494-142	70-12036-07C <=> 0
1960 V59 P13-25	70-12036-07C <=>
1961 V44 P524-337	70-12036-07D <=> 0
1962 V51 P195-216	70-12036-07C <=> 0
1962 V52 P167-172	70-12036-07C <=> 0
1962 V54 P228-233	70-12036-07E <=> 0
1962 V54 P160-168	70-12036-07C <=> 0
1963 V60 P139-154	70-12036-07C <=> 0
1963 V111 P290-304	70-12036-115 <=>

Oligomeric Silicon Compounds With Functional Groups
I. Allyl-, Vinyl- and Ethylene- Oxide-
Polysiloxanes, by G. Greber, L. Metzinger.

GERMAN = per, Makromolekulare Chemie,
Vol XXXIX, No 3, 1960, pp 167-188.

GB/59/Nov

Sci
Dec 62

Kerber, Robert.
KINETIC INVESTIGATIONS ON THE FORMATION
OF POLYMERIC PEROXIDES OF METHYL-
METHACRYLATE, II. [1961] [15p. 15 refs.
Order from SLA \$1.60 61-20631
Trans. of Makromolekulare Chemie (Switzerland)
1960, v. 40, p. 39-54.

DESCRIPTORS: *Acrylic resins, *Peroxides, Phase
transitions, Inhibition, Reaction kinetics, Catalysts,
Copolymerization, Dielectric properties, Plastics,
Polymers.

Experiments show that polar effects must be taken
into account also in radical reactions.

(Chemistry--Organic, TT, v. 7, no. 8)

61-20631

I. Kerber, R.

201442

Office of Technical Services

Grafmuller, F. and Husemann, E.
THE OXIDATION OF POLYOLEFINS. I. BEHAVIOR
OF LOW-PRESSURE POLYETHYLENE DURING
THERMAL OXIDATION. [1961] 15p. 9 refs.
Order from RIS \$30.00 RIS rept. 97144

Trans. of Makromolekulare Chemie (Switzerland) 1960,
v. 40, p. 161-171.

DESCRIPTORS: *Polymers, *Ethylenes, Oxidation,
Molecular weight, Chemical bonds, Deterioration.

(Chemistry--Organic, TT, v. 6, no. 5)

61-22972

I. Grafmuller, F.
II. Husemann, E.
III. Title: Behavior ...
IV. RIS-97144
V. Research Information
Service, New York

180583

Office of Technical Services

<p>Grafmuller, F. and Husemann, E. THE OXIDATION OF POLYOLEFINS. II. CHEMICAL AND INFRARED SPECTROSCOPIC INVESTIGATION OF OXIDIZED LOW-PRESSURE POLYETHYLENE. [1961] 21p. 15 refs. Order from RIS \$22.50</p> <p>RIS rept. 97145</p> <p>Transl. of <u>Makromolekulare Chemie</u> (Switzerland) 1960, v. 40, p. 172-188.</p> <p>DESCRIPTORS: *Polymers, *Ethylenes, Oxidation, Chemical analysis, Infrared spectroscopy. Molecular weight, Deterioration.</p> <p>(Chemistry--Organic, TT, v. 6, no. 5)</p>	<p>61-22971</p> <p>I. Grafmuller, F. II. Husemann, E. III. Title: Chemical ... IV. RIS-97145 V. Research Information Service, New York</p> <p>180582</p> <p>Office of Technical Services</p>
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Elias, Hans-George and Männer, Erich.
THE PROBLEM OF THE MEMBRANE IN OSMOTIC-
PRESSURE MEASUREMENTS WITH HIGH POLYMERS.
IV. ON THE INFLUENCE OF THE MOLECULAR-
WEIGHT DISTRIBUTION AND ADDITIVES ON THE
OSMOTIC PRESSURE IN PERMEABLE MEMBRANES
(Das Problem der Membran bei Osmotischen Messun-
gen an Hochpolymeren. IV. Über den Einfluss der
Molekulargewichtsverteilung und von Zusätzen auf den
Osmotischen Druck an Permeablen Membranen).
[1961] [18]p. (foreign text included) 9 refs.
Order from SLA \$1.60

62-10331

I. Elias, H. -G.
II. Männer, E.

201329

Trans. of Makromolekulare Chemie (Switzerland)
1960, v. 40, no. 3, p. 207-215.

DESCRIPTORS: *Polymers, Ethylenes, Glycols,
Molecular weight, *Membranes, Permeability, *Os-
motic pressure, Pressure, Measurement, Additives.
(Chemistry--Organic, TT, v. 7, no. 8) (over)

Office of Technical Services

61-10789

Falkai, B. V.
MELT AND CRYSTALLIZATION PHENOMENA OF
MACROMOLECULAR SUBSTANCES. I. CRYSTALLI-
ZATION KINETICS. STUDIES OF ISOTACTIC POLY-
PROPYLENE. [1961] [20]p. 28 refs.
Order from SLA m\$2.40, ph\$3.30 61-10989

Trans. of *Hochmolekulare Chemie* (Switzerland)
1960, v. 41, p. 85-109.

By means of intercuspole investigations, the formation of nuclei and the growth rate of isotactic polypropylene were measured separately as a function of the crystallization temperature, and the values ascertained in this way were compared with the numerical data of the over-all crystallization according to Avrami. The values were excellently in line with theory. The variation of the growth rate with temperature followed the Volmer theory, if allowance is made for the variation of the melting point of the high polymer with the preceding crystallization temperature. As the (Chemistry--Organic, TT, v. 5, no. 11) (over)

- I. Propene polymers--
Crystallization
I. Falkai, B. V.
II. Title: Crystallization ...

Office of Technical Services

Gossel, T. INFRARED-SPECTROPHOTOMETRIC STUDIES OF COPOLYMERS OF ETHYLENE AND PROPYLENE. [1961] 8p. Order from ATS \$9.95	ATS-38NS3G	61-25373
Trans. of Makromol[ekulare] Chem[ie] (Switzerland) 1960, v. 42, no. 1, p. 1-IV.		I. Gossel, T. II. ATS-38NS3G III. Associated Technical Services, Inc., East Orange, N. J.
DESCRIPTORS: *Ethylenes, *Propenes, Infrared spectroscopy, Copolymerization.		
(Chemistry--Organic, TT, v. 6, no. 8)		
11-3244		
Office of Technical Services		

Braun, D., Betz, W., and Kern, W.
POLYMERIZATION OF STYRENE WITH BUTYL-LITHIUM. III. STEREOSPECIFIC POLYMERIZATION WITH ORGANIC ALKALI METAL COMPOUNDS.
[1963] 6p 13refs
Order from SLA \$1.10

63-20263

Trans. of Makromolekulare Chemie (Switzerland)
1960, v. 42, p. 89-94.

DESCRIPTORS: *Styrene plastics, *Polymerization,
*Alkali metal compounds, Alkyl radicals, *Lithium
compounds, Solvents, Stereochemistry, Metalorganic
compounds.

Styrene can be polymerized stereospecifically by
linear lithium alkyls at low temperatures, using
branched lithium alkyls; however, only atactic
polymers are obtained. It is suggested that the
(Materials--Plastics, TT, v. 10, no. 10) (over)

63-20263

- I. Title: ButylLithium
- II. Braun, D.
- III. Betz, W.
- IV. Kern, W.
- IV. Title: Stereospecific...

Office of Technical Services

Jacobs, Herbert and Jenckel, Ernst.

DYNAMIC-MECHANICAL CHARACTERISTICS OF POLYURETHANE. Discussion no. 1 of the Mechanical Behaviour of Polyurethane as a Function of its Chemical Constitution and Thermal Past History. [1961] 12p. (7 figs. omitted) 21 refs.

Order from SLA \$1.60

62-10547

Trans. of Makromolekulare Chemie (Switzerland) 1961, v. 43, p. 132-143.

DESCRIPTORS: Polymers, *Urethanes, Mechanical properties, Temperature, Damping, Crystallization, Chemical properties.

The dynamic-mechanical properties of several types of polyurethane have been studied over a temperature range extending from about -180° C to near the melting (Chemistry-Organic. TT. v. 7, no. 9) (over)

62-10547

I. Jacobs, H.
II. Jenckel, E.
III. Title: Mechanical ...
IV. Technische Hochschule,
Aachen (West Germany)

Office of Technical Services

Bier, G., Lehmann, G., and Leugering, H. J.
BLOCK POLYMERS FROM ETHYLENE AND PROPYL-
ENE. [1962] [10]p. 14 refs.
Order from SIA \$1.10

62-18931

62-18931

I. Bier, G.
II. Lehmann, G.
III. Leugering, H. J.

Trans. of Makromolekulare Chemie (Switzerland) 1961,
v. 44/46, p. 347-357.
Another trans. is available from ATS \$9.75 as
ATS-37N53G [1961] 9p.

ATS-37N53G-6J

DESCRIPTORS: *Block polymers, Synthesis, *Ethylenes,
*Propenes, Physical properties, *Ziegler catalysts,
Metalorganic compounds.

According to the method employed by K. Ziegler for the preparation of block polymers from ethylene and propylene utilizing metal-organic mixed catalysts it can be expected that the lifetime of the active ends of the chains is relatively long. Some properties of such polymers are investigated regarding the dependence upon the ratio of the mers, i.e. the length of the blocks, the number of periods and the degree of crystallinity. (Author)

(Chemistry--Organic, TT, v. 10,
no. 1)

Office of Technical Services

Dependent Specific Volume of Polymers
and Copolymers in Solution, by R. Tanaka,
A. Yamamoto.

GERMANY, per p. Makromolekulare Chemie, Vol XIX,
No 3, 5, 1961, pp 185-200.

CSIRO/No 6864

Series Number
6864

234.473

Bier, G., Lehmann, G., and Leugering, H. J.
BLOCK POLYMERS FROM ETHYLENE AND
PROPYLENE. [1961] 9p.
Order from ATS \$9.75

ATS-37N53G

Trans. of Makromol[ekulare] Chem[ie] (Switzerland)
1961, v. 46/46, p. 347-357.

DESCRIPTORS: Polymers, Preparation, Ethylenes,
Propenes.

61-25374

- I. Title: Block polymers
- II. Bier, G.
- III. Lehmann, G.
- IV. Leugering, H. J.
- V. ATS-37N53G
- VI. Associated Technical Services, Inc.,
East Orange, N. J.

(Chemistry--Organic, TT, v. 7, n. 2)

Office of Technical Services

Burchard, W. and Husemann, E.
A COMPARATIVE STRUCTURAL ANALYSIS OF
CELLULOSE AND AMYLOSE TRICARBAHALATES
IN SOLUTION (Eine Vergleichende Strukturanalyse
von Cellulose und Amylose-Tricarbanilaten in Lösung)
tr. by D. A. Sinclair. 1961, 37p. 33 refs. NRCC
Technical Trans. 995.
Order from NRCC \$2.00 NRCC C-3880

Trans. of Makromolekulare Chem[ie] (Switzerland)
1961, v. 44/46, p. 356-387.

DESCRIPTORS: *Cellulose chemistry, Chemistry,
*Cellulose, *Saccharides, Starches, *Carbamates,
Molecular structure, Viscosity, Molecular weight,
Light, Scattering, Optics, Fractionation, Acetones,
Solutions.

(Chemistry--Physical, TT, v. 8, no. 4)

62-12696

- I. Burchard, W.
- II. Husemann, E.
- III. NRCC TT-095
- IV. NRCC C-3880
- V. National Research Council
of Canada

Office of Technical Services

Contributions to the Mechanism of Stereo Regulated
Polymerisation, by Norman Gaylord, H. Mark, 5pp
DUTCH, per, die Markromol Chem, Vol 44/46,
1961, pp 448-460
SLA TT-65-10101

Sci - Chem
June 67

328,929

Hydrodynamic Properties of Methylcellulose in
Solution, by K. Uda, 15pp
SWISS, per, die Makromol Chem, Vol 47, 1961,
pp 168-183
SLA TT-65-10093

Sci - Chem
June 67 328,962

Bohdanecky, M., Mleziva, J., Sternschuss, A., and Zvonar, V.
CONCERNING THE STRUCTURE OF HARDENED POLYESTER RESINS. [1963] 18p 12refs
Order from SLA \$1.60

TT-64-14171

Trans. of Makromol[ekulare] Chem[ie] (Switzerland) 1961, v. 47, no. 2/3, p. 201-214. (Abstract available)

DESCRIPTORS: *Polyester plastics, *Polarographic analysis, Phthalic acids, Anhydrides, Copolymerization, Styrene plastics, Hydrolysis, Volumetric analysis, Polymers, Decomposition.

The decomposition of hardened polyester resins with glycolic KOH under gravimetric and conductometric control is more advantageous, because of rapidity, for the study of the structure of resins than decomposition in aqueous or benzyl alcoholic solution. The degree of transformation of the polyester resins by copolymerization (Materials--Plastics, TT, v. 11, no. 7) (over)

TT-64-14171

- I. Bohdanecky, M.
- II. Mleziva, J.
- III. Sternschuss, A.
- IV. Zvonar, V.

Office of Technical Services

Preparation and Structure of Synthetic
Polysaccharides, by Fritz Micheel, August
Bockmann, Walter Meckstroth, 7pp
SWISS, per, die Makromolekulare Chemie,
Vol 48, 1961, pp 1-16
SLA TT-65-10102

Sci - Chem
June 67

328,945

Sinn, H., Winter, H., and Tirpitz, W. v. POLYMERIZATION AND ISOMERIZATION ACTIVITY OF TRIALKYLALUMINUM, ALKYLALUMINUM HALIDES AND MIXED ZIEGLER CATALYSTS. [1961] 10p. Order from ATS \$14.45	ATS-86N57G Trans. of Makroiol[ekuiare] Chem[ie] (Switzerland) 1961, v. 18, p. 59-71.	62-12358 I. Title: Ziegler catalysts I. Sinn, H. II. Winter, H. III. Tirpitz, W. v. IV. ATS-86N57G V. Associated Technical Services, Inc., East Orange, N. J. ATS-700-65
DESCRIPTORS: *Polymerization, *Isomeric tran- sitions, *Alkyl radicals, *Aluminum compounds, Halides, *Catalysts, Metalorganic compounds.		
(Chemistry--Organic, TT, v. 7, no. 9)		

Office of Technical Services

AKS

1484-03 POLYOXYMETHYLENES. PART 20. INITIATORS OF THE POLYMERIZATION OF TRIOXANE, V. Jaacks and W. Kern,
Makromol. Chem. No. 62, 1-17 (1962).
6050 W; 2 T; 6 F; 14 R \$17.75 (\$3.25)

Zachmann, Hans Gerhard and Schmidt, Günther
Friedrich.
MELT AND CRYSTALLIZATION PHENOMENA OF
MACROMOLECULAR SUBSTANCES. VI RESULTS
OF SMALL AND WIDE ANGLE X-RAY STUDIES
OF POLY(GLYCOL TEREPHTHALATE (TERYLENE)).
[1963] 25p. 15 refs.
Order from SLA \$2.60

Trans. of Makromolekulare Chemie (Switzerland)
1962, v. 52, p. 23-35.

DESCRIPTORS: *Fibers (Synthetic), *Polyester
plastics, *Dacron, Glycols, *Phthalates, Ethylenes,
Melting, Crystallization, Molecular structure, X-ray
diffraction analysis.

X-ray investigations show that the small angle period
decreases with increasing crystallinity in the course
(Materials--Textiles, TT, v. 10, no. 7) (over)

63-16565

1. Title: Polyglycol... phthalate
1. Zachmann, H. G.
- II. Schmidt, G. F.
- III. Title: Results...

Office of Technical Services

Jaacks, Volker and Kern, Werner.
ON POLYMERIZATION IN TRIOXANE SUBLIMATION
(Über die Polymerisation bei der Sublimation des
Trioxyans). Article no. 17 on Polyoxymethylenes. [1962]
[11]p. 12 refs.
Order from SLA \$1.60

62-16618

Trans. of Makromolekulare Chemie (Switzerland) 1962,
v. 52, April p. 37-47.

DESCRIPTORS: *Methanes, Oxygen compounds, Sublimation, Polymerization, Formaldehyde, Catalysis.

Pure trioxane, when sublimed i. vac. or when crystallized undergoes slow polymerization in the crystalline state to high molecular weight polyoxymethylene. Polymer yields decrease with rising content of water in the monomer and with rising pressure of inert gases during sublimation. This polymerization is initiated by traces (Chemistry--Organic, TT, v. 9, no. 4) (over)

62-16618

I. Jaacks, V.
II. Kern, W.
III. Title: Polyoxymethylenes

71TC - 71-12440 07C

Office of Technical Services

The Attack of the Carbonium Ion on Monomeric
Styrene in the Cationic Copolymerization of
Trioxane and Styrene. Report No 19 on Polyoxy-
methylenes, by L. Hoehr
EUROPEAN, per, Makromolekulare Chemie, Vol 52
1962, pp 59-62
NTC 71-15510-07C

feb 72

Hank, Rudolf,
THE SOLUBILITY OF REDOX POLYMERISATES OF
ACROLEIN. [1962] [13]p. 15 refs.
Order from SLA \$1.60

62-18670

Trans. of Makromolekulare Chemie (Switzerland) 1962,
v. 52, 18 Apr., p. 108-119.

DESCRIPTORS: *Acroleins, Polymerization, *Solubility, Oxidation-reduction reactions, Polymers, Viscosity, Decomposition, *Organic solvents.

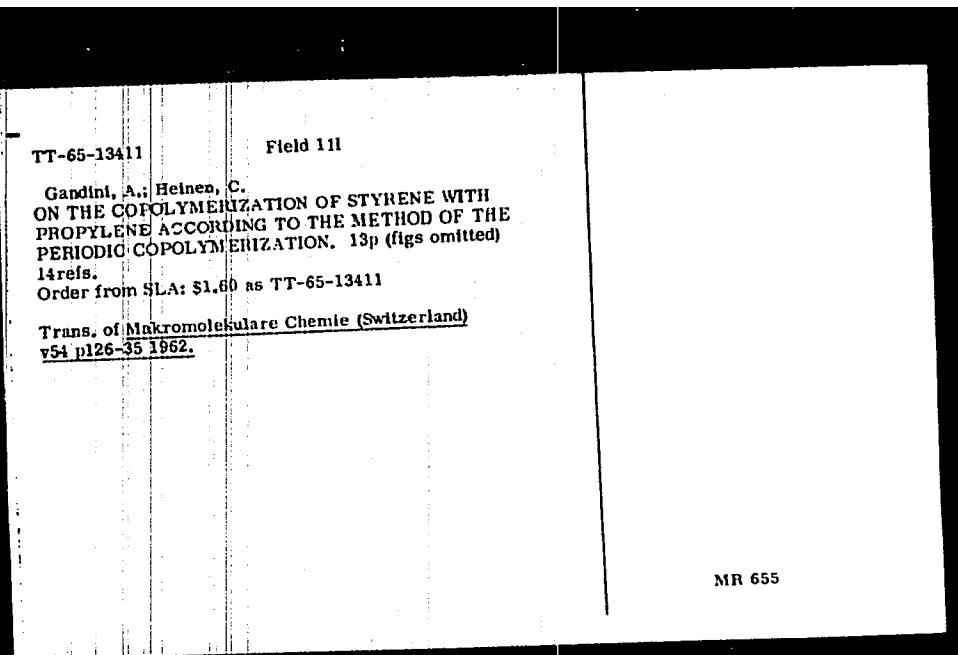
(Chemistry--Organic, TT, v. 9, no. 12)

62-18670

I. Hank, R.

Office of Technical Services

<p>Schulz, R. C., Kovacs, J., and Kern, W. SOLUTION EXPERIMENTS WITH REDOX POLYMERIZATES OF ACROLEIN. [1962] 3p. 8 refs. Order from SLA \$1.10 62-16963 Trans. of Markromolekulare Chemie (Switzerland) 1962, v. 52, p. 230-238. DESCRIPTORS: *Acroleins, *Polymers, Polymer solutions, Polymerization, Oxidation-reduction reactions.</p> <p>(Chemistry--Organic, TT, v. 8, no. 10)</p>	<p>62-16963 I. Schulz, R. C. II. Kovacs, J. III. Kern, W. Office of Technical Services</p>
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TT-65-13412

Field 7D

Schulz, G. V.; Scholz, A.; Fligini, R. V.
ANALYSIS OF TWO TYPICAL DISTRIBUTIONS OF
POLYSTYRENE BY COLUMN FRACTIONATION. 23p.
14 refs.

Order from SLA: \$2.60 as TT-65-13412

Trans. of Makromolekulare Chemie (Switzerland)
v57 p220-40 1962.

MR 655

<p>Jungmann, E., Gumboldt, A., and Bier, G. POLYMERIZATION OF ETHYLENE AND PROPYLENE TO AMORPHOUS COPOLYMERIZED STATES WITH CATALYSTS WITH VANADIUM OXYCHLORIDE AND ALUMINUM HALOGENIDES. (Polymerisation von Äthylen und Propylen zu amorphen Copolymerisaten mit Katalysatoren aus Vanadinoxylchlorid und Aluminiumhalogeniden). [1963] [22]p. (foreign text included) 13 refs. Order from SLA \$2.60</p> <p>Trans. of Makromolekulare Chemie (Switzerland) 1962, v. 38, no. 1, p. 18-32.</p> <p>DESCRIPTIONS: *Synthetic rubber, *Polyethylene plastics, *Ethylenes, *Propenes, Polymerization, Reaction kinetics, *Ziegler catalysts, *Aluminum compounds, Halogens, Alkyl radicals, *Vanadium compounds, Oxychlorides, Catalysis. (Materials--Elastomers, IT, v. 10, no. 2)</p>	<p>63-10948</p> <p>I. Jungmann, E. II. Gumboldt, A. III. Bier, G.</p> <p>63-10948</p> <p>Office of Technical Services</p>
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